UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

MEDIEN PATENT VERWALTUNG AG,

Plaintiff,

-against-

10 Civ. 4119 (CM)(GWG)

WARNER BROS. ENTERTAINMENT INC., TECHNICOLOR INC. and DELUXE ENTERTAINMENT SERVICES GROUP INC.,

Defendants.

DECISION AND ORDER (1) CONSTRUING NEWLY DISPUTED CLAIM TERM; (2) GRANTING PLAINTIFF'S MOTION FOR SUMMARY JUDGMENT OF NONOBVIOUSNESS, AND (3) DENYING DEFENDANT DELUXE'S CROSS MOTION FOR SUMMARY JUDGMENT OF INVALIDITY OF THE '633 PATENT

McMahon, J.:

Having simplified what is left to decide in this case, the parties cross move for summary judgment on the only remaining liability issue – patent invalidity. Because they have stipulated that the only arguable basis for invalidating the patent in suit (the '633 patent) is obviousness, their arguments are relatively straightforward.

The only new wrinkle revealed by the briefing is that the basis for remaining defendant Deluxe Entertainment Services Group's ("Deluxe") principal (and, it now seems, only) argument about why the '633 patent is invalid for obviousness rests on an understanding of a claim term that is not agreed – a dispute that it is not too late to resolve (as Deluxe desperately urges), and on which this Court is only too happy to weigh in (as the law requires me to do).

For the reasons articulated below, the newly-disputed claim term -- "eliminating or making unreadable digital information in at least a part of said second section corresponding to said sequence of markings on said first section" -- is construed in accordance with the plain meaning of the words it uses. Unfortunately for Deluxe, the way it reads this phrase does not comport with its plain meaning. The claim term limits the claimed invention to doing something *to the film medium itself* in order to render certain digital information unreadable, as explained in the specification. The term cannot be read to encompass steps that alter some aspect of a movie projector so that the projector becomes incapable of reading identifying markings that are placed on the analog portion of a film medium. Deluxe's proposed reading of the claim term not only runs counter to the words used by the patentee, and finds absolutely no support in the specification, but also contradicts positions previously taken by Defendant earlier in this very lawsuit!

When the court turns to the arguments for obviousness made by Defendant's expert, they evaporate. The '633 patent is not invalid for obviousness. Plaintiff's motion for summary judgment is granted and Defendant's cross motion is denied.

BACKGROUND

The record reveals no genuine issue of material fact.

I. PROCEDURAL HISTORY

Plaintiff Medien Patent Verwaltung AG ("MPV") filed its original complaint against Deluxe, Warner Bros. Entertainment, Inc. ("Warner Bros."), and Technicolor Inc. ("Technicolor") on May 19, 2010, alleging infringement of U.S. Patent No. 7,187,633 ("the '633 patent") (Ex. A). *See* Complaint (Dkt. No. 1). On January 6 and March 7, 2012, the Court issued orders construing certain terms in the asserted claims of the '633 patent. *See* First

Markman Ruling (Dkt. No. 76); Suppl. Markman Ruling (Dkt. No. 84). Deluxe and MPV thereafter filed cross motions for summary judgment on the issue of infringement, and on February 11, 2013 the Court granted summary judgment in favor of MPV, finding that Deluxe's accused "FCT Sound" film coding system infringed Claim 19 of the '633 patent. *See* Amended Decision and Order Denying Deluxe's Mot. for Summ. J. and Granting MPV's Cross-Mot. for Summ. J. (Dkt. No. 119). Shortly after that ruling, MPV reached a favorable settlement with Warner Bros. and Technicolor. *See* Stip. of Voluntary Dismissal (Dkt. No. 124).

Because Deluxe had argued that the '633 patent was invalid, the court could not enter judgment after the finding of infringement. On April 26, 2013, the parties filed a joint stipulation in which (1) the parties agreed to treat Claim 19 of the '633 patent as the sole representative claim for purposes of resolving the liability issues in this case, and (2) Deluxe withdrew its affirmative defense and counterclaim that the '633 patent is invalid on any basis other than obviousness, and also withdrew its affirmative defenses of unenforceability, waiver, laches, and equitable estoppel. *See* Joint Stip. re Claims and Defenses (Dkt. No. 130). Accordingly, aside from damages, the only open issue in the case is obviousness.

Discovery closed on July 3, 2013. These cross motions followed.

II. STATEMENT OF FACTS

A. Background of the Invention

The motion picture industry loses billions of dollars each year to piracy. Many of the unauthorized copies of movies that proliferate over the Internet and in hard-copy (*e.g.*, bootleg DVDs), originate with a "cammer" illegally copying a motion picture with a camcorder as it is being shown in a theater. Consequently, effective tools for combating such piracy are extremely

valuable to the motion picture industry. *See* Initial Expert Rpt. of W. Hoeberlein, ¶¶ 37-43 (Ex. B).[1]

The '633 patent describes and claims a method for marking a "film medium," such as a 35 mm celluloid film print used for theatrical releases, with unique "markings" that "individualize" the film. *See* '633 Patent at 10:53-65 (Claim 19). The method was developed by Gerhard Lehmann, founder and Director of MPV, as a tool to fight motion picture piracy. Hoeberlein Rpt. at ¶ 16. By placing unique codes in the soundtrack of a film print, it becomes possible to trace an unauthorized copy of the motion picture back to the theater in which it was originally shown, and that information can be used by the authorities to locate and hopefully apprehend the pirate. *Id.* at ¶¶ 21, 44-45.

Prior to Mr. Lehmann's invention, a known method for individualizing film prints involved adding visible markings or codes into some number of frames of the film, so that if someone made an illegal copy of the movie as it was being shown in a theater, the visible codes would be copied as well. However, the visible nature of such "picture coding" presented at least two problems. First, there were artistic and aesthetic issues with defacing the movie images with the picture codes. Second, if a pirate saw the codes in the unauthorized copy, it was a simple matter to edit out the relatively few frames that contained the codes. Recognizing these problems with the prior art, Mr. Lehmann set out to develop an improved anti-piracy tool for the motion picture industry. *See id.* at ¶¶ 137-142.

At the time of Mr. Lehmann's invention, a typical 35 mm film print included one or more digital soundtracks, as well as an analog soundtrack that served as a back-up. The projectors typically used in movie theaters at the time used the digital soundtrack by default, but they were

[1] Wayne Hoeberlein is MPV's damages expert.

designed to revert or "fallback" to the analog soundtrack if the digital information was missing or contained excessive errors. These projectors also included digital error correction functionality, such that an individualizing audio code placed into the digital soundtrack risked being ignored as an error and not played back with the rest of the film's audio, and thus would not be recorded by a camcorder used to make an illegal copy of the movie. *See* '633 Patent at 3:26-58, 7:32-8:36.

Mr. Lehmann realized that he could use the error checking/reversion feature of the commonly used projectors to his advantage by hiding the audio codes in the analog soundtrack and purposely rendering the corresponding portion of the digital soundtrack unreadable. The projector would then automatically fall back to the analog soundtrack for a short period of time, during which the audio codes would be played over the theater's sound system, and thus would be included in any illegal copy made during presentation of the movie. *See id.* at 8:11-21.

B. The '633 Patent

The '633 patent, titled "Marking of a Data Medium Material for Information Intended for Reproduction," issued on March 6, 2007 from an application filed on May 14, 2004. *Id.* at 1. The patent claims priority to European Patent Application No. EP 03015888 filed July 11, 2003 and German Patent Application No. DE 20 2004 003 254 filed March 2, 2004. *Id.* Gerhard Lehmann is the sole inventor. *Id.* MPV owns the entire right, title, and interest in and to the '633 patent. *See* Hoeberlein Rpt. at ¶ 22.

In accordance with a preferred embodiment of the invention described in the patent, a motion picture film print is "individualized" by forming a sequence of markings in a portion of the analog soundtrack that represent an identification code for that particular print. *See* '633 Patent at 6:33-46. In conjunction with the formation of markings in a portion of the analog

soundtrack, the corresponding portion of the digital soundtrack is removed or otherwise rendered unreadable. *Id.* at 7:32-8:10. This alteration of the digital soundtrack forces the film projection equipment to revert to the analog soundtrack and thus play back the audio markings with the analog soundtrack information. *Id.* at 8:11-21. Figure 4 of the '633 patent, reproduced below, illustrates this aspect of the patented invention:

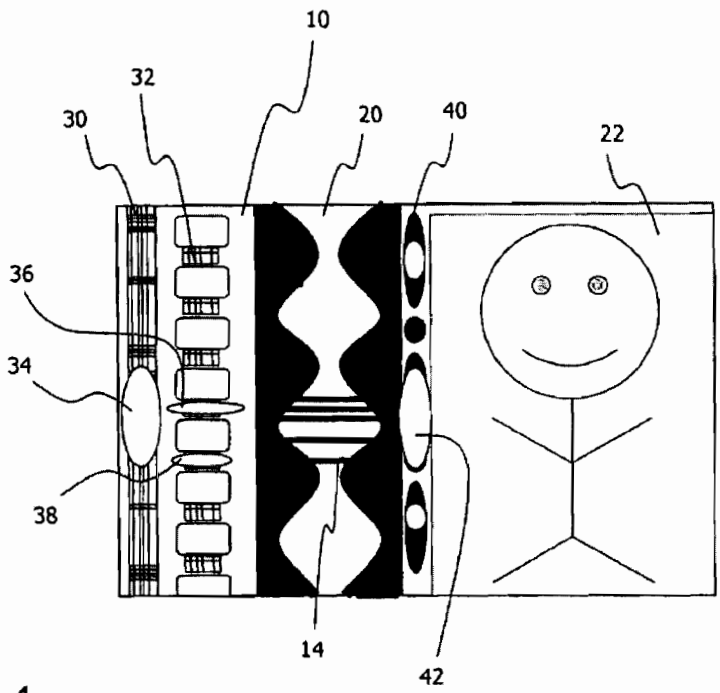

Fig. 4

As shown in Figure 4,[2] the medium (10) is in the form of a celluloid motion picture film print. *Id.* at 7:32-33. The exemplary film print includes a single optical analog soundtrack (20), and three digital soundtracks (30, 32, and 40). *Id.* at 7:33-51. Ordinarily, the digital soundtracks are read when the film is shown and the analog soundtrack serves as a redundant "fallback" to be used only if the digital soundtrack contains errors.

[2] In the Court's discussion of Figure 4, the numbers in parentheses refer to the numbered items on the Figure.

Figure 4 shows that within the analog soundtrack (20) are markings (14) that typically would identify both the master film print from which the particular release print was made and the theater to which the release print was sent. *Id.* at 7:63-65. Locations (34, 36, 38, and 42) on the digital soundtracks (30, 32, and 40) of the film print, which correspond to the location of the markings (14) on the analog soundtrack (20), have been rendered unreadable. *Id.* at 7:63-8:10. As a result, the read-out unit of the film projection equipment falls back to the analog soundtrack (20) containing the markings (14). *Id.* at 8:11-21. The markings produce a sound that is different from the sound reproduced from ordinary analog sound information. Ideally, that difference will be imperceptible to the theatre audience, but it will be captured on recorded copies. *Id.* at 8:59-67. Thus, when a pirated copy of a motion picture is found, the pirated audio soundtrack is compared to the original audio soundtrack for the film title in order to "find" the markings, which markings provide an identification code for the film print from which the pirated copy was made. Knowing the identity of the film print allows the studio to determine the particular theater where the pirated copy was made in order to better prevent such piracy in the future.

Claim 19 of the '633 patent, which the parties have agreed will serve as the lone representative claim for purposes of resolving the present dispute between MPV and Deluxe, recites the key features of Lehmann's invention:

> 19. A method of marking a film medium, in which information is contained in a continuous sequence for reproduction, wherein said film medium includes a first section containing analog information and a second section containing digital information, said analog information corresponding with said digital information, said method comprising the steps of:
>
> forming a sequence of markings on said first section, said markings individualizing said medium and being readable together with said analog information; and

> eliminating or making unreadable digital information in at least a part of said second section corresponding to said sequence of markings on said first section.

'633 Patent at 10:53-65 (emphasis added). Deluxe's new technical expert, Jim C. Williams, refers to this last limitation ("eliminating or making unreadable.....") and Limitation (e). I will use that term as well.

C. Deluxe's Obviousness Defense

The basis for Deluxe's obviousness defense was set forth in an interrogatory response that was served on March 8, 2013, two weeks before the close of fact discovery. *See* Supplemented Objections and Responses to Nos. 7-14 of MPV's First Set of Interrogs. to Deluxe, 4-5 and Charts 1-5 ("Deluxe's Interrog. Resp.") (Ex. C). In that response, Deluxe disclosed that its obviousness defense was based on the following references:

- U.S. Patent No. 5,080,479 ("Rosenberg");
- EP 0 574 239 ("Kohut I");
- U.S. Patent No. 4,382,299 ("Dieterich");
- U.S. Patent No. 4,853,798 ("Fukuju");
- U.S. Patent No. 5,327,182 ("Kohut II"); and
- U.S. Patent No. 5,544,140 ("Seagrave").

Id. at 4-5. After fact discovery had closed, MPV learned that Deluxe was relying on a sixth reference, one that its technical expert located after "hours and hours and hours" of searching:

- Sony DFP-3000 Cinema Processor System Quick Start Guide ("DFP-3000 QSG").[3]

[3] Copies of the references are attached as Exhibits D-J respectively.

See Dep. of J. Williams, 06/27/13, 103:1-10 ("Williams Dep.") (Ex. K).

Each of Deluxe's references bears a date earlier than the earliest possible priority date of the '633 patent, so MPV does not dispute that the references qualify as prior art.

In his expert report, Williams describes various combinations of the above-identified references that allegedly render Claim 19 of the '633 patent obvious. *See generally*, Expert Rpt. on Invalidity of J. Williams, 04/05/13 ("Williams Rpt.") (Ex. L). The primary reference in each combination is the Rosenberg patent, which is the only one of the seven references that has anything to do with coding film prints. *See, e.g.*, Williams Rpt. at ¶¶ 35-56 (discussing combination of Rosenberg and Kohut I). Rosenberg describes a method for optically implanting invisible and inaudible "location markers" in the analog soundtrack of a film print that can be used to calculate an identification number for the print. *See* Rosenberg at 2:18-26, 2:46-3:12 (Ex. D). The patent, which issued from an application filed in 1990, dealt with an older type of film print that contained only an analog soundtrack, as opposed to the more modern film prints described in the '633 patent that contain both digital and analog soundtracks. *See id.* at 5:4-15 and Fig. 1 (describing film with only a single optical soundtrack 6). Consequently, Rosenberg did not confront, let alone solve, the technical challenges of implementing an audio coding scheme on a film print having a default digital soundtrack and a redundant analog soundtrack.

Using Rosenberg as his primary reference, Williams separately relies on each of the other six references – Kohut I, Kohut II, Dieterich, Fukuju, Seagrave, and DFP-3000 QSG – as disclosing the "eliminating or making unreadable digital information" element of Claim 19 of the '633 patent (Limitation (e)), which turns out to be the critical portion of the claim for our purposes. *See* Williams Rpt. at ¶¶ 51-56, 57, 76-83, 106-17, 137-44 and 162-67.

III. PLAINTIFF'S PATENT IS NOT INVALID FOR OBVIOUSNESS

A. Summary Judgment of Nonobviousness May Properly Be Granted in a Patent Case

When "there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law," summary judgment should be granted. FED. R. CIV. P. 56(a); *see also IGT v. Bally Gaming Int'l, Inc.*, 659 F.3d 1109, 1115 (Fed. Cir. 2011). Summary judgment may properly be granted on the issue of nonobviousness. *See, e.g.*, *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360-64 (Fed. Cir. 2011); *Crown Operations Int'l, Ltd. v. Solutia Inc.*, 289 F.3d 1367, 1378 (Fed. Cir. 2002); *MeadWestvaco Corp. v. Rexam PLC*, 809 F. Supp. 2d 463, 474-76 (E.D. Va. 2011). Such a motion does not require a court to find that a challenged patent claim is valid, but rather only that the claim is *not invalid* in view of the particular prior art references cited by the defendant. *See Michael Foods, Inc. v. Papetti's Hygrade Egg Prods., Inc.*, 1994 WL 379016, at *2 (Fed. Cir. July 20, 1994).

The party that moves for summary judgment bears the initial burden of showing that there is no genuine issue of material fact. *See Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). In determining whether a genuine issue of material fact exists, the court views the evidence in the light most favorable to the nonmoving party and resolves all doubts in the nonmovant's favor. *See Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986); *Transmatic, Inc. v. Gulton Indus., Inc.*, 53 F.3d 1270, 1274 (Fed. Cir. 1995). When that initial burden is met, the nonmoving party then must demonstrate why summary judgment should be denied. *See Anderson*, 477 U.S. at 256-57. Here both parties have cross moved for summary judgment; each bears the burden on its motion and neither has identified a genuine issue of material fact. Plaintiff has identified a genuinely disputed issue of law – namely, a new issue of claim construction – but that raises no genuine issue of fact, since claim construction is for the Court.

An issued United States patent enjoys a presumption of validity that can be overcome only by clear and convincing evidence of invalidity. *See* 35 U.S.C. § 282; *see also United States Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1563 (Fed. Cir. 1997). Accordingly, the party challenging the validity of the patent has the burden to prove that the patent is invalid, and "a moving party seeking to have a patent held not invalid at summary judgment must show that the nonmoving party, who bears the burden of proof at trial, failed to produce clear and convincing evidence on an essential element of a defense upon which a reasonable jury could invalidate the patent." *Crown*, 289 F.3d at 1378 (quoting *Eli Lilly & Co. v. Barr Labs., Inc.*, 251 F.3d 955, 962-63 (Fed. Cir. 2001)).

B. Obviousness Requires More than Merely Identifying Various References Disclosing Individual Claim Elements

Obviousness under 35 U.S.C. § 103 is an issue of law based on underlying issues of fact. *See Unigene*, 655 F.3d at 1360 (citing *Eisai Co. v. Dr. Reddy's Labs.*, 533 F.3d 1353, 1356 (Fed. Cir. 2008)). "An obviousness analysis measures the difference between the claimed invention and the prior art to determine whether 'the subject matter as a whole would have been obvious at the time the invention was made' to a person having ordinary skill in the art." *Id.* (quoting *Alza Corp. v. Mylan Labs., Inc.*, 464 F.3d 1286, 1289 (Fed. Cir. 2006)). The factual issues that may be considered include: (1) the scope and content of the prior art, (2) the level of ordinary skill in the art, (3) the differences between the claimed invention and the prior art, and (4) objective indicia of nonobviousness, such as commercial success of the patented invention. *See Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966).

"Obviousness requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination." *Unigene*, 655 F.3d

at 1360 (citing *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007)). Rather, obviousness requires "the additional showing that a person of ordinary skill at the time of the invention would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention." *Id.* (citing *KSR*, 550 U.S. at 421).

Importantly, "Care must be taken to avoid hindsight reconstruction by using 'the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit.'" *In re NTP, Inc.*, 654 F.3d 1279, 1299 (Fed. Cir. 2011) (quoting *Grain Processing Corp. v. American-Maize Prods. Co.*, 840 F.2d 902, 907 (Fed. Cir. 1988)); *see also KSR*, 550 U.S. at 421 ("A factfinder should be aware . . . of the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning.").

C. The Prior Art Fails to Disclose Altering a Film Medium to Eliminate Digital Information or Render It Unreadable

The "method of marking a film medium" recited in Claim 19 of the '633 patent takes advantage of a number of well-known phenomena – notably the placement of markings on an analog film track that duplicates one or more digital tracks – via the following allegedly innovative step:

> *eliminating or making unreadable digital information in at least a part of said second section [of the film medium]*[4] corresponding to said sequence of markings on said first section.

'633 Patent at 10:63-65 (emphasis added). This step is referred to as "Limitation (e)" in the report of Deluxe's technical expert, Williams. As discussed in the specification of the '633

[4] The parties do not dispute that the phrase "second section" refers to a portion of a film medium – specifically, the digital portion (as opposed to the analog portion, which is the "first section" of the film medium).

patent, this involved purposefully eliminating or obscuring digital sound information on a film print. Doing so will cause standard movie theater projection equipment to revert temporarily to the back-up analog soundtrack, on which (according to the patent) there have been placed markings (audio codes) that can be read and played back by the projection equipment. *See* '633 Patent at 8:11-21. Thus, the invention ensures that the embedded audio codes are included in any unauthorized copy of the film, along with the rest of the audio and video content presented by the projection equipment.

As its own technical expert concedes, Deluxe has failed to identify any single prior art reference that teaches altering the digital soundtrack of a film print in order to purposely cause the projection equipment to play back the analog soundtrack. *See* Williams Dep. at 80:16-81:5; 84:16-19; 106:1-12; 108:7-21; 122:19-123:7; 132:19-134:9; 137:24-138:11; 150:7-13; 153:23-154:2; 160:17-162:2; 166:2-174:11; 184:9-17. This feature can fairly be characterized as a key distinguishing feature over the prior art, enabling audio codes to be placed in the analog soundtrack instead of the digital soundtrack where they potentially could be ignored by the digital error correction logic in the projection equipment.[5] *See* '633 Patent at 8:22-28.

Rather than relying on any single reference, Williams's report identifies six separate prior art combinations that allegedly render Claim 19 of the '633 patent obvious. Each combination involves the so-called "Rosenberg" patent (U.S. Patent No. 5,080,479) with a second reference,

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[5] There is, apparently, no technical reason why the individualizing codes could not be hidden in the digital soundtrack of a film print, so long as the error correction circuitry is configured appropriately to permit playback of the codes. *See, e.g.*, '633 Patent at 8:22-28 (Jackson Ex. A); Ex. I at 28:55-29:56. It was generally assumed at the time of Lehmann's invention that the film industry was moving away from distribution of celluloid film prints in favor of digital film distribution. *See* Jackson Ex. M. MPV argues that a person of ordinary skill in the art in 2003 would not have been motivated to adopt the approach reflected in Claim 19 of the '633 patent, but rather would have been led to place individualizing codes in the digital soundtrack to ensure that the anti-piracy measures could not be circumvented simply by copying the film in a theater equipped with digital projection equipment and would remain viable in the future – in short, that what was "obvious" was the exact opposite of the claimed invention. The Court does not need to resolve that issue in order to decide the cross motions, but it is an appealing observation.

and each combination allegedly renders Limitation (e) obvious. In support of its motion for summary judgment, MPV explains why each of the six prior art combinations identified in the Williams Report fails to render Limitation (e) obvious. In opposing the motion, Deluxe has briefed only one of the six – the combination of Rosenberg with Sony's DFP-3000 instruction manual. *See* Williams Rpt., Jackson Ex. N, Section F at 26. I assume that Deluxe has abandoned Williams's other arguments; MPV's brief, and especially the Supplemental Report of its expert, Charles Seagrave, cogently explain why. I will, in an excess of caution, address all six arguments, but briefly, except for the argument that relates to Rosenberg plus Sony DFP-3000, which consumes the lion's share of the parties' briefing.

1. Rosenberg with Kohut I, Kohut II, Dieterich, or Fujuku

Four of the six references on which Deluxe relies for disclosure of the "eliminating or making unreadable" element of Claim 19 – Kohut I, Kohut II, Dieterich and Fukuju – relate to schemes for detecting and correcting or otherwise addressing errors found in digital soundtracks on media, either film (Kohut I and II) or high density non-film discs (Dieterich) or recording media (Fujuku). As Williams expressly admits, none of the four patents expressly discloses "eliminating or making unreadable digital information in at least a part of said second section [digital soundtrack] corresponding to said sequence of markings on said first section [analog soundtrack]." In order to argue that these four patents disclose Limitation (e), Williams theorizes that the developers would have had to eliminate digital information or render it unreadable in some manner in order to test the switching circuitry or error correction mechanisms that the inventors claimed. *See, e.g.*, Williams Rpt. at ¶¶ 56-57, 83, 117, 144. Williams's treatment of Kohut I is representative:

> Although Kohut I does not expressly state "eliminating or making unreadable digital information," one of ordinary skill in the art would recognize that this limitation is necessarily present in Kohut

> I. Specifically, *in order to fully test the switching circuit 218 disclosed in Kohut I, the inventors would have had to make the digital information received at circuit 208 unreadable in a variety of ways, including elimination*, and observe the expected switch from digital to analog on the output from switching circuit 218 that is input to circuit 28.

Williams Rpt. at ¶ 56 (emphasis added).

This "necessarily implicit" testing that Williams hypothesizes is unconfirmed by a scintilla of evidence demonstrating that it was actually undertaken occurred in connection with any of these four patents. Moreover, none of the four patents either discloses or suggests the use of the sort of testing that Williams hypothesizes. "In order to invalidate a patent based on prior knowledge or use, that knowledge or use must have been available to the public." *Woodland Trust v. Flowertree Nursery, Inc.*, 148 F.3d 1368, 1370 (Fed. Cir. 1998). So even if the hypothesized testing occurred, it could not be considered "prior art" because information about such testing was not made publicly available.

Finally, there is no suggestion in any of the patents – and no evidence from persons skilled in the art – that anyone understood that deliberate defacement of a digital soundtrack could be employed as Lehmann employed it: to force a movie projector to revert to a corresponding audio track where an identifying marking that would show up on an infringing print of a motion picture could be found. Indeed, the record reveals that the inventors of Deluxe's own infringing patent, U.S. Patent No. 7,394,519 (the '519 Patent), both testified that neither of them was aware, as late as 2006, of an instance in which the digital soundtrack of a film print had been intentionally altered to force a reversion to the analog soundtrack. *See* Wary EBT at 93:3-6; Mossman EBT, 69:12-15 (cited in Jackson Ex. N, the Seagrave Rebuttal Rpt. at 12, ¶ 33).

2. Rosenberg with Seagrave

The fifth patent that Williams says can be read together with Rosenberg to render the invention obvious is U.S. Patent No. 5,544,140 ("Seagrave"). The inventor of Seagrave (or one of the named inventors), Charles Seagrave (who was working for Dolby Laboratories at the time of the invention), happens to be *MPV's* technical expert! Mr. Seagrave describes the invention disclosed in the '140 patent as being directed to the implementation of a digital soundtrack on a motion picture film. Like any typical digital reproduction system, the one whose invention is claimed in Seagrave (Dolby Digital ®) includes an error detection and correction capability. In the event that errors detected in the digital soundtrack cannot be corrected or exceed a specified threshold, Seagrave employs the technique (which, as is undisputed, existed well before the patent in suit) of reversion – switching from the digital soundtrack to the analog soundtrack to ensure continuity of playback. This is accomplished, not by eliminating the digital soundtrack or rendering it unreadable – the method claimed in the patent-in-suit – but by muting the sound (*i.e.*, turning the volume all the way down), which does not make the soundtrack unreadable, but rather inaudible. *See* Seagrave Rebuttal Rpt., Jackson Ex. N, at 25-26.

Seagrave combined with Rosenberg probably presents the closest case for Deluxe's obviousness argument, but it does not work, either. As noted by the inventor himself, the purpose of the reversion processing described in Seagrave is to ensure that audible sound is reproduced for the audience from the analog soundtrack in the event that errors in the digital soundtrack are not correctable – which would, presumably, interfere with the sound quality emanating from the digital soundtrack. By contrast, the identifying codes in Rosenberg are expressly disclosed as being inaudible. Thus, during ordinary operation, using the reversion circuitry of Seagrave to force a projector to fall back to the analog soundtrack in place of the digital soundtrack would

not have been viewed as a desirable way to read Rosenberg's inaudible codes. *See* Jackson Ex. N at ¶ 72.

While the Seagrave patent does not disclose any testing of the sort hypothesized by Williams, we know that such testing actually occurred. After reading Williams's report, Mr. Seagrave revealed (in his rebuttal report) that his team at Dolby Laboratories did in fact alter the digital soundtrack of a film print in order to see whether the system could revert to the analog soundtrack when there were simply too many errors present in a digital soundtrack so that correction or concealment was not feasible during ordinary operation – what he referred to as "a last resort." *See* Seagrave Rebuttal Rpt. at 26, ¶ 68. The inventors of Seagrave did not contemplate ever purposely damaging the digital soundtrack in order to force reversion as part of the ordinary playback of a movie, whether to catch pirates or for any other reason. In any event, Deluxe cites no evidence suggesting that the public was aware of this aspect of Dolby Laboratories' testing protocol, so the "testing" argument fails for the Seagrave patent for the same reason it fails for the Kohut I and II, Dieterich, and Fujuku patents.

3. Rosenberg with Sony DFP-3000

The sixth and last reference that Deluxe combines with Rosenberg is Sony's DFP-3000 QSG (Ex. J) (Jackson Ex. N, Section F at 26). The DFP-3000 QSG is a user's guide for a projection booth sound system of the type that could be used in a movie theater. *See* DFP-3000 QSG at 1-1. Like the other secondary references, the DFP-3000 QSG describes the well-known ability to revert from playback of a digital signal to a redundant analog signal. *Id.* (describing "comprehensive fallback system").

DFP-3000 QSG differs from the five prior art patent references discussed above in that it does disclose instructions for testing the reversion functionality. But those instructions point in a decidedly different direction than any of the other references. DFP-3000 QSG teaches that the

reversion functionality should be tested by blocking off the light-emitting diodes ("LEDs") that the projector uses to read the digital soundtrack, thereby causing the system to revert to the analog soundtrack. *Id.* at 6-10 (stating that "blocking the [projector's] LEDs will allow you to confirm operation of the SDDS ACM (Analog Concealment Mode) fallback to optical or other preset").

Deluxe's argument that this prior art combination renders Claim 19 obvious rests on an interpretation of Claim 19 under which the step of "eliminating or making unreadable digital information in at least part of said second section [of the film medium]" can be performed without doing anything at all to the digital portion of the film medium, but instead inhibiting the ability of the projection equipment to read information. Deluxe's expert Williams opines as follows:

> DFP-3000 QSG teaches blocking the LED used to read each of the three digital soundtrack information streams on a quad format feature. This teaches each and every example of "eliminating" and "making unreadable" depicted in Figure 4 of the '633 Patent. Specifically, DFP-3000 QSG teaches blocking the LED used to read the SDDS digital soundtrack as described by the '633 Patent making track 30 unreadable at 34.

Williams Rpt. at ¶ 167.[6] According to Williams, DFP-3000 QSG teaches a method of rendering a movie projector incapable of reading digital soundtrack information by altering a feature of the projector – the LED that is used to read the film – rather than by doing anything to the "second section" (the digital portion) of the film medium itself. It is Williams's opinion that the claim is written from the perspective of the projector, and therefore should be construed as encompassing

[6] Williams's suggestion that the LED-blocking technique of the DFP-3000 QSG "teaches each and every example of 'eliminating' and 'making unreadable' depicted in Figure 4 of the '633 Patent" is completely unfounded, as Figure 4 depicts various ways of physically altering the digital information on the film medium, with no depiction of blocking off LEDs in a projector. *See* '633 Patent at Fig. 4 and 7:63-8:10.

changes made to the projection equipment even if the film print itself is untouched. *See* Williams Dep. at 151:3-16; 177:20-179:8.

Neither MPV nor Deluxe asked the Court to interpret the "eliminating or making unreadable" language in Claim 19 during the claim construction phase of the case. MPV contends that Williams's report relies on a construction of that term that is completely at odds with the actual words of the claim, which refers only to eliminating digital information from a portion of the digital film soundtrack (the "second section") or rendering such information unreadable on the film track itself. Since Williams obviously reads the claim language differently, MPV asks the court to construe the claim.

Deluxe argues that it is too late for a new *Markman* phase, but it hardly lies in Deluxe's mouth to make that argument, since it is Deluxe's eleventh-hour reference and the associated construction given to a patent term by Williams that injects this new issue into the case. Until recently, Deluxe took the position that the '633 patent disclosed altering the digital soundtrack of a film print to force a projector to revert to playback of the analog soundtrack. For example, in its Claim Construction Brief, Deluxe argued:

> The '633 patent, therefore, instructs one to practice the alleged invention by deleting or erasing the portion of the digital soundtrack that corresponds to the location of the markings on the analog track in order to "force" the projector to read the analog track.

Docket No. 73 at 5. Deluxe made exactly the same argument in support of its motion for summary judgment. *See* Docket No. 91 at 5-6. Deluxe's original technical expert explained the invention disclosed in the '633 patent in the same terms. *See* Docket No. 81 at ¶¶ 20-21. The entire history of this litigation belies the suggestion that MPV should have understood that this claim term could be understood in the way that Deluxe now suggests.

Only the Court can resolve what is obviously a dispute about the meaning of the claim language, *see O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008), and the fact that the dispute is raised late in the day does not relieve me of that burden. *See CytoLogix Corp. v. Ventana Med. Sys., Inc.*, 424 F.3d 1168, 1172 (Fed. Cir. 2005) (stating that a "district court has considerable latitude in determining when to resolve issues of claim construction"); *Jack Guttman, Inc. v. Kopykake Enter., Inc.*, 302 F.3d 1352, 1361 (Fed. Cir. 2002).

MPV proposes the following construction based on the ordinary meaning of the claim language and the clear teaching of the '633 patent:

Claim Term	**Proposed Construction**
eliminating or making unreadable digital information in at least a part of said second section [of the film medium]	Mechanically or optically altering the film medium, thereby removing at least part of the digital soundtrack or making it unreadable.

MPV argues that its proposed construction comports fully with the meaning that a person of ordinary skill in the art would glean from reading the claim term in the context of the specification of the '633 patent.

Claim 19 expressly recites "[a] method of marking a film medium," and implicitly requires that something be done to that film medium by specifying the location of the digital information that is to be eliminated or made unreadable, *i.e.*, "in at least a part of said second section [of the film medium]." *See* '633 Patent at 10:53-57, 63-65. Further, the Summary of the Invention in the specification provides various examples of how the optical properties of the film medium are thus changed, all of which are directed at the film medium:

> The digital information corresponding to the analog information, in the area of which the markings are formed, may be absent and/or unreadable.... Where the unreadable digital information is (or was) formed, the medium can have subsequently changed optical properties. Thus in a first step, the digital information can be associated with the medium, and in a subsequent second step, the

> digital information can be mechanically or optically changed in places (e.g. using mechanical devices or a laser).

'633 Patent at 3:50-64.

MPV further notes that Deluxe described the qualifications that would be possessed by a person of ordinary skill in the relevant art as of the 2003 invention date as follows: "The claimed invention is directed to the art of watermarking an analog soundtrack. The level of ordinary skill in the art of watermarking an analog soundtrack would require at least two years of higher education in electrical engineering or equivalent industry experience." *See* Deluxe's Interrog. Resp. at 5 (Ex. C). Deluxe's description of a person skilled in the art does not mention having any skill in blocking the ability of projection equipment to read soundtracks.

By contrast, MPV argues, Deluxe's attempt to construe this claim term as encompassing manipulations of the projection equipment finds no support in the specification. Every one of the examples of rendering digital information illegible (*i.e.*, "unreadable") in the '633 patent involves altering the film medium; none inhibits the functionality of the projection equipment:

> As can be taken from FIG. 4, the digital sound tracks 30, 32 and the time code track 40 at the locations adjacent to the markings 14 of the optical sound track 20 are removed, or reading out was prevented at these locations (strictly speaking the portions of the tracks 30, 32 and 40 that correspond information-wise to the portions of the analog data in which the markings are formed are rendered illegible). *For this purpose, speck-like changes 34, 36, 38 and 42 were made in the two digital sound tracks 30, 32 and the time code track 40 by means of a laser. Alternatively, stripe-like changes may be made by scratching, cutting or the like. Not applying the tracks 30, 32, 40 at the locations 34, 36, 38 and 42 during manufacture, or making the tracks 30, 32, 40 unreadable at the locations 34, 36, 38 and 42 by mechanical means (by nicking, scraping, etc.) could also be considered.*

'633 Patent at 7:63-8:10 (emphasis added).

Deluxe, as noted, argues that it is not appropriate for the Court to construe this claim term at this late date. However, it argues that the plain meaning of the phrase supports its expansive reading of the scope of "Limitation (e)."

This is not even a close issue. Deluxe's strained reading of the now-disputed claim terms contradicts the plain meaning of the words used by the patentee, has not a scintilla of intrinsic evidence to support it, and fails to comport with common sense. It is so nonsensical that it contradicts representations made to this court by Deluxe earlier in this litigation! I thus reject Defendant's suggestion that any "plain meaning" reading of this limitation encompasses inhibiting a movie projector's ability to read the digital soundtrack of a film medium without any alteration of the film medium itself.

The starting point for any claim construction analysis is the language of the claim. *See ACTV, Inc. v. Walt Disney Co.*, 346 F.3d 1082, 1088 (Fed. Cir. 2003). The claim language requires that the digital information contained on some portion of the second section of a film medium be either "eliminat[ed]" or "ma[de] unreadable." Blocking off an LED used by a projector to read digital information on the film print does neither. It does not "eliminate" the information from the film print, because the digital information is still right there on the print. It does not make that information "unreadable," because any properly-operating film projector (*i.e.*, one that has not had one of its integral parts – the LED – disabled or blocked) will be perfectly capable of reading it. Blocking off the LED merely renders a particular piece of projection equipment temporarily incapable of reading the digital information – it does not make the digital information unreadable. That same film could be run through different projection equipment, or the blockage of the LED could be removed, and the digital information would be read without

having to do anything to the film print. Deluxe's expert concedes as much. *See* Williams Dep. at 179:9-180:8.

Additionally, there is not a scintilla of support in the specification for the reading proposed by Deluxe's expert. The specification, as this Court has already found, describes altering the digital soundtrack of a film medium – a piece of film, not a film projector. The specification offers several different examples of how one could alter the digital information on the film medium to eliminate it or render it unreadable, including making "speck-like changes" with a laser, making "stripe-like changes . . . by scratching, cutting or the like," and "by nicking, scraping, etc." '633 Patent at 7:63-8:10. Deluxe itself acknowledges that the MPV patent "expressly discloses that one could 'eliminate' the digital soundtrack or make it 'unreadable' . . . by altering the digital soundtrack." Deluxe Br. at 19. The specification also explains the effect that altering the film medium in one of these several ways will have: it will prevent the projection equipment from reading out the digital soundtrack, thereby causing it to fall back to the analog soundtrack, where the identifying markings are embedded. *See* '633 Patent at 8:11-21. Deluxe's own expert was constrained to agree that nothing in the specification suggests that the fallback to the analog soundtrack is caused by manipulating the projection equipment without doing anything to the film medium. *See* William EBT at 154:18-22, 177:9-19.

Nonetheless, Deluxe insists that the specification clearly discloses manipulating projection equipment. It does not. There is not so much as a syllable in the specification that mentions manipulating projection equipment so that it cannot read portions of the digital soundtrack as claimed in Claim 19 – which, as noted above, is something very different from rendering the film itself unreadable.

The precise (and only) language on which Deluxe relies to support its claim of "clear disclosure" is the phrase "or by other steps" in the sentence that reads: "By omitting the digital information or making it unreadable in places, or by other steps, a transition from the primary to the secondary information source can be enforced." 633 patent at 3:52-55. But the phrase "or by other steps" does not "disclose" anything at all, clearly or otherwise, since the "other steps" are not specified. Furthermore, Claim 19 by its literal terms is expressly limited to "eliminating or making unreadable digital information." The claim does not refer to taking any "other steps" besides "eliminating" the digital information or rendering that information "unreadable." I can, therefore, read no unspecified "other steps" -- including rendering a projector incapable of showing, by blocking its light -- into the patentee's language.

The patent contains a detailed description of "eliminating or making unreadable digital information" (a phrase that would read better if the words were rearranged to "eliminating the digital information or making it unreadable"). That detailed description discloses only alterations to the film medium; there is no discussion of doing anything to the projection equipment in order to "mak[e] [the digital information] unreadable."[7] I agree with MPV that the specification at 7:63-8:2 all but defines the disputed claim term:

> As can be taken from FIG 4, the digital sound tracks 30, 31 and the time code track 40 at the locations adjacent to the markings 14 of the optical sound track 20 are removed, or reading out was prevented at these locations (strictly speaking the portions of the tracks 30, 32 and 40 that correspond information-wise to the portions of the analog data in which the markings are formed are rendered illegible).

I find myself in the inverse of the situation that usually confronts a judge in a patent case. Ordinarily, the patentee argues strenuously that its claims cannot be limited to the preferred

[7] I can think of no way in which one could "eliminate" digital information from the film medium by fiddling with the projector.

embodiment, while the party attacking the validity of the patent tries to hew as closely as possible to the precise disclosures in the preferred embodiment. Here, the opposite is occurring. However, while it is absolutely true that the claim language (not the preferred embodiment) defines the invention, in this case, the claim language is narrow and precise – so it is hardly surprising that the preferred embodiment, as disclosed in the specification, tracks that language.

Finally, Deluxe argues that the following language in the '633 Patent expressly discloses that one method of rendering digital data unreadable would be to alter the projector:

> The analog sound track 20 is read out only if a read-out device (e.g. a film projector) does not allow the tracks 30, 32, 40 to be read out, or if the tracks 30, 32 40 are dirty, defective or otherwise unreadable.

'633 Patent at 7:57-60. However, I do not read that sentence as "claiming" that monkeying with the projector is a way to render digital data "unreadable." Indeed, what this sentence plainly says is that data will not be read if (1) the projector fails for some unspecified reason, or (2) the data tracks are themselves "unreadable," because, for example, they are dirty or defective. The writer of the sentence does not in any way conflate the concept of an altered projector with defective and hence unreadable data tracks!

Furthermore, as MPV correctly notes, this sentence has been taken entirely out of context – which, when supplied, reveals that this entire paragraph (including both the quoted sentence and the conveniently omitted sentences before and after) consists of an explanation of why digital film prints include a redundant analog track.[8] Everyone concedes that this development

[8] The paragraph in which the quoted sentence appears reads in its entirety as follows: "The sets of information which are contained in the altogether three sound tracks 20, 30 and 32 or that can be derived from the control information read from the time code track 40 agree with each other redundantly. For this reason, usually only one of the tracks, often the SRD sound track 32, is read out. The analog soundtrack 20 is read out only if a read-out device (e.g., a film projector) does not allow the tracks 30, 32, 40 to be read out, or if the tracks 30, 32 40 are dirty, defective or otherwise unreadable. In other words, the optical sound track 20 is often used as a 'fallback solution.'"

occurred long before the '633 patent came into being. The genius of Lehman's invention is that the patentee found a way to transform what had theretofore been used as a "fallback solution" for overcoming unanticipated glitches (like dirty or scratched film or projector failure) into a "to catch a thief" device – accomplished by the medium of placing man-made "glitches" on the digital portion (second section) of the digital/analog film, thereby forcing the projector to read the "fallback" analog track, where the identifying codes are placed.

In short, rendering a particular movie projector incapable of reading digital film neither eliminates any of the digital information on that film nor renders the film "unreadable." Therefore, the disputed claim term cannot be read as broadly as Deluxe insists it should be.

I note that the entire history of this lawsuit lends support to what the words of the patent tell me to be true: Limitation (e) does not disclose or equate eliminating digital information on the film medium or rendering it unreadable with monkeying around with the movie projector.

I thus accept MPV's construction of the newly-disputed claim term.

In light of that construction, there is really nothing to discuss with respect to the combination of the Rosenberg and Sony DFP-3000 QSG prior art references. Deluxe's own expert concedes that nothing in the DFP-3000 QSG reference suggests doing anything to the digital information on the film medium to force playback of the analog soundtrack, let alone doing so for the purpose of presenting a sequence of markings embedded in the analog soundtrack. *See* Williams Dep. at 150:7-13; 153:23-154:2; 160:17-162:2; 166:2-174:11. Nothing disclosed in DFP-3000 QSG would cause one skilled in the art to come up with Lehmann's invention.

With respect to all the cited prior art references, Deluxe has failed to show that they rendered Claim 19 of the '633 patent obvious. Deluxe has not demonstrated that "a person

having ordinary skill in the art" would have "selected and combined those prior art elements in the normal course of research and development to yield the claimed invention." *Unigene*, 655 F.3d at 1360 (citing *KSR*, 550 U.S. at 421).

D. Deluxe's Obviousness Defense Rests on an Impermissible Hindsight Reconstruction of MPV's Patented Invention

In a typical obviousness defense, the party attacking the patent contends that it would have been obvious for a person skilled in the relevant art at the time of the invention to have combined the teachings of two or more references to produce the patented invention. *See KSR*, 550 U.S. at 416 (observing that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results"). Here, for the reasons stated above, merely combining the various references cited by Deluxe does not result in the patented invention. For that reason, Deluxe must rely heavily on unsubstantiated suppositions by its technical expert – Williams – about how a person skilled in the art in 2003 might have modified the prior art to create the anti-piracy method recited in Claim 19. And while Williams takes pains to parrot the various reasons articulated by the Supreme Court in *KSR* as to why a person skilled in the art might have been led to combine or modify references, *see* Williams Rpt. at ¶ 174, he offers nothing more than conclusory statements to fill the gap between the prior art and the patented invention. *See Crown*, 289 F.3d at 1378 (finding nonobviousness where defendant offered "only an assumption and its own contentions" regarding claim limitation missing from prior art).

Williams's summary of his analysis highlights the fundamental defect in Deluxe's obviousness defense:

> In short, at the time of the alleged invention, it would have not been a surprise to any person of ordinary skill in the art that

> theatrical audio systems would revert to analog in the event that the digital soundtrack was absent or unreadable. As shown above, such systems were designed precisely in that manner. Further, the layout of the film media as depicted in Figure 4 of the '633 Patent and Figures 1-4 of Seagrave that simultaneously includes the analog optical soundtrack and multiple digital soundtracks supports that fallback process by design. Accordingly, the notion that in the absence of a readable digital soundtrack, the theater sound systems would revert to analog was disclosed by the prior art discussed above.

Williams Rpt. at ¶ 173. All this may be perfectly true, but it misses the point. Lehmann did not invent reversion from a digital soundtrack to an analog soundtrack, nor did he claim to do so. Lehmann used that existing technology to implement a previously unknown and more effective form of undetectable (to pirates) coding on the analog audio track to combat motion picture piracy. There is absolutely no evidence in the record that anyone prior to Lehmann conceived of purposely eliminating a portion of the digital soundtrack of a film print or rendering it unreadable (in effect, by cutting it out or otherwise defacing it) to force a reversion to an analog soundtrack where identifying audio codes were hidden. Williams concedes as much. *See* Williams Dep. at 80:16-81:5; 84:16-19; 106:1-12; 108:7-21; 122:19-123:7; 132:19-134:9; 137:24-138:11; 150:7-13; 153:23-154:2; 160:17-162:2; 166:2-174:11; 184:9-17. I agree with defendants that all Williams has done is identify the building blocks that existed in 2003, and then suggest, without any evidentiary support, that it would have been obvious to put those blocks together in the same way that Lehmann and only Lehmann did.

Given the complete absence of any teaching in the cited prior art regarding a key element of the claimed invention, Williams's reliance on his own suppositions about what others might have done to arrive at MPV's patented invention reflects precisely the type of impermissible hindsight reconstruction that the Federal Circuit has consistently warned against. "One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to

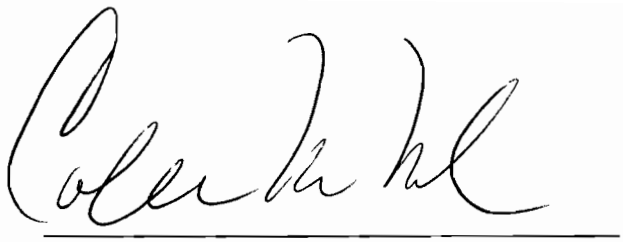
deprecate the claimed invention." *In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992); *see also In re Constr. Equip. Co.*, 665 F.3d 1254, 1262-63 (Fed. Cir. 2011) (Newman, J., dissenting); *accord Janssen Pharmaceutica N.V. v. Teva Pharms. USA, Inc.*, 583 F.3d 1317, 1328-29 (Fed. Cir. 2009) ("[A]n inventor may look at the prior art differently than those before her, arrive at a novel and nonobvious insight, and submit a patent application that compiles the prior art findings that led her to the insight in such a way as to render obvious in hindsight what was wholly nonobvious at the time she filed her application."). Here, the lone audio coding reference on which Deluxe relies, the Rosenberg patent, was published in 1992, more than 10 years before the invention date of the '633 patent. Yet despite the incentives represented by the billions of dollars in losses that the movie industry was suffering from piracy, no one prior to Gerhard Lehmann conceived of the supposedly obvious advance claimed in the '633 patent. Deluxe's obviousness defense is the epitome of impermissible hindsight.

CONCLUSION

Deluxe has failed to come forward with sufficient evidence to support a finding, by clear and convincing evidence, that Claim 19 of the '633 patent is invalid for obviousness. There is no genuine issue of material fact to be resolved by the jury regarding what the prior art cited by Deluxe does – and does not – disclose. Accordingly, MPV's motion for summary judgment dismissing the defense of obviousness is granted and Deluxe's cross motion for summary judgment on that issue is denied.

This disposes of the liability phase of the case. The only outstanding issue is damages. The parties are expected to be ready for a trial on damages by March 15, 2014. They may be called to trial at any time after that date on 48 hours notice.

Dated: January 29, 2014



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BY ECF TO ALL COUNSEL